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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR    | ATTORNEY DOCKET NO.   | CONFIRMATION NO. |
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| 09/922,815      | 08/06/2001  | Christopher A. Michaluk | 98048CON(3600-090-02) | 9155             |

7590

01/16/2003

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EXAMINER

OLTMANS, ANDREW L

ART UNIT

PAPER NUMBER

1742

DATE MAILED: 01/16/2003

12

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/922,815

Applicant(s)

MICHALUK ET AL.

Examiner

Andrew L Oltmans

Art Unit

1742

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE \_\_\_\_\_ MONTH(S) FROM ~~THE MAILING DATE OF THIS COMMUNICATION.~~ \*See Item #6, below: suspension

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 08 January 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) See Continuation Sheet is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) See Continuation Sheet is/are allowed.
- 6) ☐ Claim(s) \_\_\_\_\_ is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413) Paper No(s) \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- \* 6) ☒ Other: See Continuation Sheet

Continuation of Disposition of Claims: Claims pending in the application are 1-30,32-37,39,63,66,81,83-87,93-101,104-128,131-139,142-152,155-159,162-174 and 177-192.

Continuation of Disposition of Claims: Claims allowed are 1-30,32-37,39,63,66,81,83-87,93-101,104-128,131-139,142-152,155-159,162-174 and 177-192.

Continuation of Attachment(s) 6). Other: All claims are allowable. However, due to a potential interference, ex parte prosecution is SUSPENDED FOR A PERIOD OF 6 MONTHS from the date of this letter. Upon expiration of the period of suspension, applicant should make an inquiry as to the status of the application.

## DETAILED ACTION

### *Suspension*

1. All claims are allowable. However, due to a potential interference, *ex parte* prosecution is SUSPENDED FOR A PERIOD OF 6 MONTHS from the date of this letter. Upon expiration of the period of suspension, applicant should make an inquiry as to the status of the application.

### *Allowable Subject Matter*

2. Claims 1-30, 32-37, 39, 63, 66, 81, 83-87, 93-101, 104-128, 131-139, 142-152, 155-159, 162-174 and 177-192 are allowed.
  - a. A primary reason for allowance of instant claims 1-27, 63, 66 and 81 is that the prior art fails to teach or suggest, either alone or in combination, the instantly claimed tantalum metal having a purity of at least about 99.995% and an average grain size about 75 microns or less.
  - b. A primary reason for allowance of instant claims 28-30, 32-37, 39, 130-132, 137, 141-143, 149, 158-159, 162-170 and 187 is that the prior art fails to teach or suggest, either alone or in combination, the instantly claimed tantalum metal sputtering target having the claimed purity in combination with the claimed grain size or texture.
  - b. A primary reason for allowance of instant claims 120-128, 131-139, 142-152, 155-157, 171-174, 177-186 and 188 is that the prior art fails to teach or suggest, either alone or in combination, the instantly claimed tantalum metal sputtering component

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having a purity of at least about 99.99% and a uniform primary 111 texture through the thickness of the tantalum metal.

c. A primary reason for allowance of instant claims 83-87, 93-97 and 189-192 is that the prior art fails to teach or suggest, either alone or in combination, the instantly claimed tantalum metal having a purity of at least about 99.995% and an average grain size about 150 microns or less and a uniform primary 111 texture through the thickness of the tantalum metal.

d. A primary reason for allowance of instant claims 98-101 and 104-119 is that the prior art fails to teach or suggest, either alone or in combination, the instantly claimed tantalum metal having less than 50 ppm metallic impurities and an average grain size about 75 microns or less.

### *Conclusion*

3. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Andrew L. Oltmans whose telephone number is 703-308-2594. The examiner can normally be reached 8:30-5:00 Monday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Roy King can be reached on 703-308-1146. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9310 for regular communications and 703-873-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0661.

*ALO*

ALO

January 15, 2003

*Roy King*  
ROY KING  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 1700